

Argument structure alternations in Tenetehára language (Tupí-Guaraní)

Alternâncias de estrutura argumental na língua Tenetehára (Tupí-Guaraní)

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Abstract

This paper aims to describe three different argument alternation processes in the indigenous language Tenetehára (Tupí-Guaraní), spoken in the Northeast region of Brazil. The first one is a process of noun incorporation without valence decrease. The second construction analyzed here is the antipassive voice. We show that a transitive verb can be “antipassivized” when the morpheme $\{-pur(u)\}$ is attached to it. Moreover, we claim that antipassive constructions are not restricted to ergative languages. Finally, the third phenomenon analyzed is valence increase, which occurs by means of the applicative morpheme $\{-er(u)\}$. Based on Pykkänen’s (2002, 2008), Vieira’s (2001, 2010), and Camargos (2017, 2020) proposal, we contend that this morpheme is the instantiation of a high applicative head.

Keywords: Valence alternation. Argument structure. Noun incorporation. Antipassive. High applicative.

Resumo

Este artigo tem por objetivo descrever três processos diferentes de alternância argumental na língua indígena Tenetehára (Tupí-Guaraní), falada na região Nordeste do Brasil. O primeiro é um processo de incorporação nominal sem diminuição de valência. A segunda construção analisada aqui é a voz antipassiva. Mostramos que um verbo transitivo pode ser “antipassivizado” quando o morfema $\{-pur(u)\}$ é juntado a ele. Além disso, argumentamos que as construções antipassivas não se restringem às línguas ergativas. Por fim, o terceiro fenômeno analisado é o aumento da valência, que ocorre por meio do morfema aplicativo $\{-er(u)\}$. Com base na proposta de Pykkänen (2002, 2008), Vieira (2001, 2010) e Camargos (2017, 2020), afirmamos que esse morfema é a instanciação de um núcleo aplicativo alto.

Palavras-Chave: Alternância de valência. Estrutura argumental. Incorporação nominal. Antipassiva. Aplicativo alto.

Introduction¹

Verbal alternations are one of the most discussed topics in the history of syntax. Whaley (1997), for example, states that natural languages, in general, are rich and diverse with respect to mechanisms of increasing and decreasing verbal valence. Thus, it is in this context that this paper is set, since it aims to analyze three mechanisms of valence change in the Tenetehára language². The first process examined is noun incorporation, which, according to Castro (2007), implements a decrease in valence, since the object is incorporated into the transitive verb, making it intransitive. However, we will demonstrate, contrary to Castro (2007), that the language under analysis still allows the incorporation of part of the object without changes in the valence of the verb. The second construction investigated is the antipassive voice. We will show that a transitive verb can be antipassivized when it receives the morpheme $\{-pur(u)\}$ ³. The main evidence for this valence reduction is the fact that the direct object of a transitive verb, in this context, receives a postposition, which can also be observed in other ergative and accusative languages. Finally, the third phenomenon analyzed is valence increase via the applicative morpheme $\{-er(u)\}$ ⁴, which was first analyzed by Vieira (2010), based on Pylkkänen (2002, 2008). Based on

1 Part of this research was developed during fieldwork carried out in the indigenous land of Araribóia (in the Lagoa Quieta and Barreirinha villages). We would like to acknowledge the important support of the Tenetehára indigenous people who helped us gather the linguistic data that make up this research, especially the Indians Cíntia Guajajára, Pedro Guajajára and Raimundo Guajajára.

2 The Tenetehára language is spoken in the northeast of Brazil by two indigenous peoples: the Tembé and the Guajajára. According to Rodrigues (1985) and Duarte (2007), this language belongs to Branch IV of the Tupí-Guaraní linguistic family of the Tupí trunk.

3 The morpheme $\{-pur(u)\}$ is the grammaticalization of the lexical item *puru* ‘people’, which occurs in noun incorporation in contexts of diminished verbal valence, as in the example below.

(i) u-puru-pytywà a’e
 3-people-help him
 “(He) helps people” (Castro 2013)

In this line of investigation, the speaker seems to have reanalyzed such a word as an antipassive morpheme, to the extent that the antipassive voice also results in decreased verbal valence, as will be seen in this paper. Additionally, Bueno (1998) states that the Tupí-Guaraní-Nheengatú term *poro* is an adjective and means “inhabitant of, people, dweller”.

4 Seki (2000), regarding the morpheme $\{ero-\}$, instructs that this grammatical unit is a comitative causative. The author analyzes this morpheme in the Kamaiurá language (Tupí-Guaraní).

Pylkkänen (2002, 2008), Vieira (2010), and Camargos (2017, 2020), we will show that this morpheme allows for an object to be introduced into the verbal valence potential of intransitive verbs.

This paper⁵ is organized into four sections. In section 1, we present the formulation of the problem. In section 2, we present the theoretical framework that will support the theoretical proposal. In section 3, we present the Case marking system in Tenetehára. Finally, in section 4, we examine data from the Tenetehára language and relate it to the theoretical framework presented above. We close the paper with the final remarks.

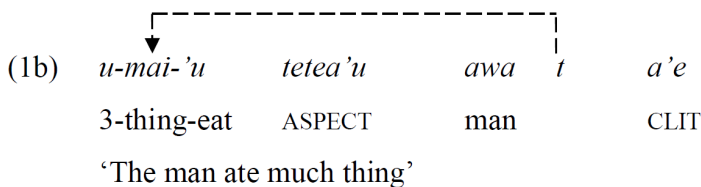
1. Formulating the problem

Castro (2007) proposes that transitive predicates in Tenetehára become intransitive when the object of the initially transitive verb is incorporated into the verbal root. The result will be a verb that is semantically transitive, but which c-selects only one nuclear argument in the subject function, as shown in the pair of examples below:

- (1a) *u-'u tetea'u awa ma'e*⁶
 3-eat ASPECT man thing
 ‘The man ate much thing’

⁵ We would like to thank immensely the reviewers of the Revista Brasileira de Linguística Antropológica (RBLA) without whom this version of the present article would never have reached such maturity. We would like to thank immensely the reviewers of the Revista Brasileira de Linguística Antropológica (RBLA) without whom this version of the present article would never have reached such maturity. Any errors and inconsistencies, both descriptive and theoretical that remain in the text core are certainly our sole responsibility.

⁶ Abbreviations used in this paper: =: clitic boundary; ABS: absolute case; ACC: accusative case; ALL: allative; AOR: aorist; APASS: antipassive morpheme; APPL: applicative morpheme; ASPECT: aspectual morpheme; C: prefix marking adjacency of the complement; CLIT: final clitic; COM: comitative morpheme; CONT: aspect continuative; CORR: correferential. prefix {w- ~ o- ~ u-}; DAT: dative; DESID: desiderative; ERG: ergative case; FV: final vowel; FUT: future; INDIC: indicative; INS: instrumental; INTR: intransitive; ITER: iterative; NP: non-possessive/generic case; NOM: nominative case; NOML: suffixed nominalizer; OBJ: object; PASS: passive voice; PAST: past tense; PERF: perfective aspect; PL: plural; PONT: punctual aspect; POSS: possessive/genitive; PSP: posposition; PREP: preposition; REFL: reflexive prefix; SG: singular; SUBJ: subject; SUF: suffix; TNS: tense; TR: transitive; U: undergoer (patient).



Note that in (1a), the transitive verb 'u 'eat' selects two core arguments: the subject DP *awa* 'man' and the object DP *ma'e* 'thing'. In (1b), on the other hand, there is a morphosyntactic process of incorporation of the object DP, namely *ma'e* 'thing'. In this way, the object argument moves from its base position, incorporating itself to the left of the verbal root, producing the intransitive verb *mai-'u* 'eat thing', motivated by Baker (1988).

However, new data collected in 2010 show that in the context of the possessor's raising or stranding⁷, only part of the object (namely: the possessed NP) can be incorporated into the vP head. The result of this process does not change the initial transitive structure, as argued by Castro (2007). That is, in the possessor raising constructions, there is no valence reduction, although there is incorporation.

In addition, the analysis presented in this paper will look for evidence of the existence of antipassive voice, as it occurs in other ergative and accusative languages. Some theorists, among them Dixon (1979), Silverstein (1976) and Spencer (1991), claim that accusative languages bi-univocally have the Passive voice, while ergative languages have the Antipassive voice. Heath (1976), Postal (1977), Davies (1984), Givón (1984), Lazard (1989), Lidz (1996), Lacadena (2000), Blight (2004), among others, show that not only ergative languages exhibit antipassive constructions, but also some accusative languages exhibit structures that behave like antipassives.

This hypothesis is supported by the crosslinguistic analysis of the phenomena realized by the antipassive voice. As will be seen, this process seems to produce the same effects on morphology, syntax, and semantics in both ergative and accusative languages, such as English, French, and Portuguese, as shown in the following examples:

⁷ According to Vieira (2010) and in line with Baker (1988) and Pylkkänen (2002, 2008), "Possessor Stranding structures are characterized by the manifestation of the possessor and the possessed element as two distinct syntactic objects." (Vieira, 2010: 147, 148).

English⁸(2a) *John shot the rat*(2b) *John shot at the rat*

(2b') 'John shot (PREP) the rat' Blight(2004)

French⁹(3a) *Elle a goûté les fraises*(3b') *Elle a goûté aux fraises*

(3b'') 'She tasted (PREP) the strawberries' Herslund (1997)

Portuguese¹⁰(4a) *Eu bebi o leite*(4b') *Eu bebi do leite*

(4b'') 'I drank (PREP) the milk' Castro (2013)

If the examples in (b) above are confirmed to be contexts of antipassive voice in accusative languages, as claimed by Heath (1976), Postal (1977), Davies (1984), Givón (1984), Lazard (1989), Lidz (1996), Lacadena (2000), Blight (2004), and others, it should be noted that no traditional grammar of English, French and Portuguese languages mention antipassive voice when referring to these structures as active voice in “indirect transitive” contexts.

We thus postulate that these structures, in non-ergative languages, are types of antipassives, or at least correspond to them in many respects.

8 In the English sentences, the form without a preposition implies that the rat was necessarily hit, while in the version with a preposition, the rat may not have been hit.

9 In the French data, the version without a preposition is used in the sense of savoring the strawberries, while the form with a preposition implies that the strawberries were only tasted.

10 In the Portuguese data, in the sentence without a preposition, all milk is drunk; on the other hand, in the form with a preposition, only part of the milk is consumed.

Thus, the morpheme $\{-pur(u)\}$ in Tenetehára can be interpreted as the morphological realization of the antipassive voice, as in example (6b). Furthermore, it is necessary that the subject DP of the clauses in which the antipassive morpheme occurs incorporates the semantic feature “volition” below, for example.

- (5a) *w-exak Murari ma'eputy r a'e*
 3-see Murari flower she
 ‘Murari sees the flower’

- (5b) *i-puru-exak-wer¹¹ Murari ma'eputy r-ehe a'e*
 ABS-APASS-see-DESID Murari flower C-PSP he
 ‘Murari wishes to see the flower’ Castro (2013)

In (5a), we have the transitive verb *exak* ‘see’, which c-selects two DPs, the subject *Murari* and the object *ma'eputy* ‘flower’. In (5b), in turn, there is a morphosyntactic process of valence reduction, which, as we will theoretically summarize in section 3, occurs due to the addition of the antipassive morpheme to the verbal predicate. Additionally, through investigations of the indigenous informants, we conclude that the postpositional phrase *ma'eputy rehe* ‘(in) the flower’ cannot be omitted in data as in (5b).

Another interesting phenomenon, which will be the focus of investigation in this paper, is the occurrence of the morpheme $\{-er(u)\}$. Following Pylkkänen (2002, 2008), Vieira (2010), and Camargos (2017, 2020), we will show evidence that this grammatical unit is the manifestation of a high applicative head in Tenetehára. Applicative, according to Pylkkänen (2002, 2008), is a functional head responsible for the increase of valence of a verb by adding an “extra” object which is interpreted as being either in a relation to the event described by the verb – High Applicative, or in a transfer of possession relation with another argument – Low Applicative.

¹¹ According to Navarro (2012), “... the suffix *-wera* comes from the Old Tupi suffix *-swer*, which forms deverbal names indicating propensity, inclination, or habit...”

These structures will be further described in section 2.4. The data in (6) illustrate the occurrence of the $\{er(u)\}$ morpheme in Tenetehára.

(6a) *a'e u'ar*
 3 3-fall
 “He fell” Castro (2013)

(6b) *w-eru-'ar wa'yr*
 3-COM-fall CORR-SON
 “He fell with his (own) son” Castro (2013)

In (6) we have an unaccusative verb, ‘*ar* ‘fall’. Unaccusative verbs, as proposed by Perlmutter (1978) and Burzio (1986), among others, are intransitive verbs, that is, verbs that only select one argument which is realized as the subject, and this single argument is thematically interpreted as “patient” or “affected”. In (6a), the predicate ‘*ar* ‘fall’ selects the third-person subject *a'e* ‘he’, whereas, in (6b), there is a morphosyntactic process of increasing the number of arguments in the predicate. This can be observed because in (6b) there is an additional DP, namely, the DP *wa'yr* ‘son’. This increase in valence seems to be connected with the fact that in (6b) an applicative morpheme $\{-er(u)\}$ is attached to the verb ‘*ar* ‘fall’, making it transitive. In this way, this morpheme introduces an applied object with the semantic role of comitative¹². In the next section, we present the theoretical framework that will underlie this work.

2. Theoretical framework

In this section, we will briefly review the literature on the issues that will be addressed in this study. For the phenomenon of incorporation, we will summarize the proposals of Baker (1988) and Hale and Kayser (1993, 2002). In relation to the nominative and ergative case systems we will refer mainly to Dixon (1979). About the introduction of objects with the comitative function, we will use the applicative typology of Pykkänen

¹² The $\{-er(u)\}$ morpheme is called a causative-comitative morpheme in the descriptive tradition of Brazilian indigenous languages.

(2002, 2008). Finally, about antipassive voice constructions, we will refer to the work of Lazard (1989), Lacadena (2000), Blight (2004), among others.

2.1. Incorporation

According to Baker (1988), in some ergative languages, there is a context in which, when the object of transitive verbs becomes incorporated in the predicate head, the encoding of the object in the verb is modified, since there has been a change in the grammatical functions of the elements, as the thematic paraphrases of Chukchi taken from Baker (1988) let evidence.

- (7a) *ənan* *remkəlʔ-in* *pojg-ən* *məcətku-nin*
 3PL.ERG guest-POSS spear-ABS break-3SG.SUBJ/3SG.OBJ
 ‘He broke the guest’s spear’

- (7b) *ənan* *pojgə=məcətko-nen* *remkəlʔ-ən*
 3PL.ERG spear=break-3SG.SUBJ/3SG.OBJ guest-ABS
 ‘He broke the spear (for (harm)) of the guest’ Baker (1988)

It can be noted that in (7a), the predicate is a transitive structure without incorporation, which has a direct object modified by a possessed NP, marked with a possessive suffix. When the verb incorporates its object, the possessor not only remains outside the verb complex, but acquires a full grammatical relation of the NP - that is, of direct object - and is marked with Absolutive Case, as shown in (7b).

According to Baker (1988), incorporation is a syntactic phenomenon in which a head is moved from its base position to a higher position. In addition, such a move must satisfy the Empty Category Principle (ECP). Thus, the moved element must leave a trace at the position where it is generated. This trace must be c-commanded by the moved object. Furthermore, according to Baker (1988), in the syntactic operation of incorporation, there must be a biunivocal relationship between semantic structure and syntactic structure. This means that the Uniformity of Theta-Assignment Hypothesis (UTAH) must be satisfied. Therefore, when items are inserted into the derivation, there must be a one-to-one mapping, namely: the relation between thematic

and syntactic structure must be preserved.

Hale and Keyser (1993, 2022) propose a theory of argument structure in which the syntactic relations map semantic relations, that is, semantic roles are assigned through specific syntactic configurations. The authors show that only the internal argument can be incorporated into the verbal complex by analyzing location/locatum verbs in which the object is incorporated via *conflation*. This proposal is in line with Baker's UTAH and ECP proposals – the object must be licensed in a lower position so that it can raise into the verbal complex in incorporation contexts. External arguments cannot incorporate.

In the next subsection, we will briefly discuss Case systems, which were proposed by Dixon (1979).

2.2. Ergative and nominative Case systems

Crosslinguistically, there is a distinction in sentences involving a monoargumental verb and those encompassing verbal predicates that select two or more core arguments. According to Dixon (1979), there is the proposition that languages operate in terms of three primordial relations, namely (i) S - intransitive subject; (ii) A - transitive subject; and (iii) O - transitive object.

Thus, in languages where the nominative-accusative system operates, (S) and (A) are grammatically treated the same way, as can be seen in examples (8) from Latin taken from Duarte (2007). In these data, the nominative case morpheme {-us} occurs in DPs that figure in both subject positions in (A) and (S).

(8a) *lup-us* *agn-um* *uide-t*
 wolf-NOM lamb-ACC see-3

“The wolf sees the lamb”

(8b) *lup-us* *veni-t*
 wolf-NOM come-3

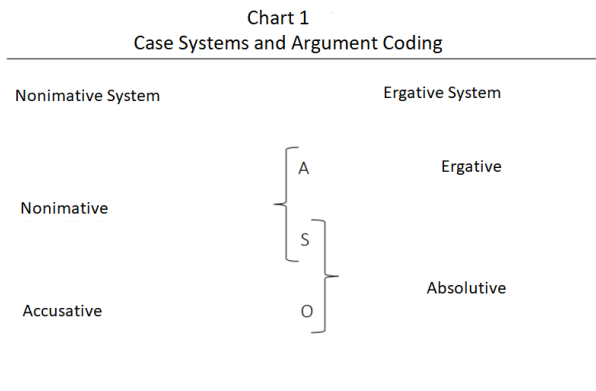
“The wolf comes”

In ergative-absolutive languages, (S) and (O) are usually given an identical grammatical marking, as in the Kuikuro (Karibe dialect) data below taken from Franchetto (1990). The relations (S) and (O) receive the absolute case prefix { \emptyset -}

(9a) *karaihá* \emptyset -*kacun-tárâ*
 white ABS-work-CONT
 “The white is working”

(9b) *tâ-murú* \emptyset -*ikain-jâ* *itaó-heke*
 REFL-SON ABS-raise-PONT woman-ERG
 “The woman raised her (own) son”

In this line of investigation, it is possible to delineate these relationships, according to the following table:



Adapted from Dixon: 1979

In addition to the situations already shown, many languages additionally present a combination of the nominative-accusative and the ergative-absolutive system. In this context, a split system occurs in the argument encoding (A), (S) and (O). This split is, as a rule, called the Split-S System. Several grammatical factors are responsible for triggering such a system combination, such as the thematic role assigned to the nuclear arguments in the subject position (A)/(S) and (O), the semantic nature of the verb, and others. The split system will be observed in section 3, where we will exhibit

the Case marking system in Tenetehára. For details regarding the argument structure of the Tenetehára language, we refer the reader to the works of Harrison (1986), Duarte (2012a, 2012b) and Camargos (2013, 2017).

In the next subsection, we take up some theoretical proposals related to the phenomenon of the antipassive voice.

2.3. Antipassive voice

Following Silverstein (1976), Polinsky (2005) and others, the antipassive voice is a detransitivized derivative construction related to a corresponding transitive construction whose predicate is the same lexical item. Thus, antipassive voice makes a verb, originally transitive, become intransitive. In a transitive construction, the direct object DP is usually the patient. In a construction in the antipassive voice, however, this object DP can either be suppressed (remain implicit), according to Polinsky (2005), or realized as an oblique complement, according to Aldridge (2012).

The term antipassive was coined by Silverstein (1976) in order to indicate that this construction is the mirror image of the passive voice, as follows: (i) in the passive voice, the suppressed or removed DP is the external argument, which tends to be the agent of the construction; (ii) in the antipassive voice, the suppressed or removed DP is the internal argument, which tends to be the patient. Prototypically, the following possibilities of antipassive structures can be verified in the linguistic literature: (i) demotion of the object by means of adpositions; (ii) incorporation of the object; (iii) reduction to zero¹³; and (iv) syntactic pivot¹⁴.

In order to highlight the antipassive voice in the context of object demotion by means of an adposition, we present the following data from Yucatec, in which we can observe one construction in the active voice and one in the antipassive voice, respectively:

13 Foley and Van Valin (1985) distinguish two main types of antipassives: foregrounding antipassives and backgrounding antipassives. Foregrounding antipassives are those that occur in languages with a syntactic pivot system. Backgrounding antipassives, on the other hand, are structures of the types of object demotion by means of adpositions, object incorporation and reduction to zero.

14 The syntactic pivot, according to De Vries (2002), establishes that the main clause and the embedded one are directly connected. Moreover, this connection between the two clauses is realized both at the syntactic and semantic level.

(10a) *mà'alob'* *'a-tan-ik* *màayah*
 well 2SG-speak-PERF Maia
 “You speak Maia well”

(10b) *mà'alob'* *'a-t'àan* *'itS* *màayah*
 well 2SG-speak-APASS PREP Maia
 “You speak Maia well” Blight (2004)

In the Yucatec example (10a), we have the transitive verb *tan* ‘to speak’, which selects two nuclear arguments: a second person subject represented by the prefix {*a-*} and the internal argument *màayah* ‘Maia’. In (10b), on the other hand, a morphosyntactic process of verbal valence decrease can be observed, which we describe as follows: the antipassive morpheme is attached to the verb *tan* ‘to speak’, making it evolve into *t'àan* ‘to speak’. This predicate now selects only the second person subject {*a-*} since the object of the original sentence *màayah* ‘Maia’ is removed from its object function and is introduced by the preposition *'itS*. In (10b), the absence of the perfective grammatical aspect affix {-*ik*} is noteworthy. The lack of this affix seems to point to the fact that grammatical aspect is often sensitive to active/antipassive alternation, as predicted by Polinsky (2005). The same phenomenon of object demotion via adposition can be observed in English, as in the examples below:

(11a=2a) John shot the rat

(11b=2b) John shot at the rat

In (11a), the transitive predicate *shot* selects two core arguments, the subject DP *John* and the object DP *rat*. In example (11b), on the other hand, a null antipassive morpheme { \emptyset }¹⁵ occurs. This grammatical unit has the

¹⁵ Since we are looking for further evidence for the existence of antipassive voice in both ergative and accusative languages, the latter confirmed by Heath (1976), O Postal (1977), Davies (1984), Givón (1984), Lazard (1989), Lidz (1996), Lacadena (2000), Blight

function of demoting the DP *rat*, since the latter becomes oblique. The result of this valence reduction operation is that the transitive verb *shoot* is reanalyzed as monoargumental. It is noteworthy that, in (11a), on the one hand, the object DP *rat* is fully affected by the action expressed by the verbal predicate; on the other hand, in (11b), the DP *rat*, now headed by the preposition *at*, is not necessarily affected. This uncertainty of affectedness seems to confirm that the use of either the active or the antipassive voice often produces alternation in the verbal aspect, as seen also in (10).

Therefore, the antipassive voice, when it demotes object DPs by means of adpositions, decreases the verbal valence of the transitive predicate in which it occurs, which evolves to intransitive. In this case, the adposition present in the structure is the one that selects the argument now headed by a PP, being, therefore, a lexical adposition¹⁶. Thus, the former DP object argument of the original transitive predicate becomes an argument of the adposition of the derived clause.

Theoretically speaking, the antipassive voice, acting in object incorporation contexts, is a syntactic phenomenon of valence reduction. An object DP of a transitive verb is moved from its base position into the verb root. This phenomenon results in the fact that a transitive verb is reanalyzed as intransitive. As an example of the antipassive in the context of object incorporation, we give the following data from the Southern Tiwa language, taken from Allen (1988):

- (12a) *seuan-ide* *ti-mu-ban*
 man-SUF 1SG.SUBJ/AO-see-PASS
 “I saw the/a man”

(2004), among others, our temporary solution is that the antipassive morpheme is $\{\emptyset\}$ in many languages. This is supported by the fact that, crosslinguistically, both full and null antipassive morphemes produce, as a rule, the same syntactic and semantic effects. Future work may corroborate this statement.

16 Lexical adpositions (prepositions and postpositions), also called predicative, select arguments. Functional adpositions do not select arguments. An example of a functional preposition is ‘de’ in ‘Joanina gosta de leite’ (‘Joanina likes milk’). Notice that the PP ‘de leite’ *of milk* is selected by the verb ‘gosta’ *like*, that is, both the preposition and the noun are selected by the verb. An example of a lexical preposition is *de* ‘in’ in ‘Joanina correu de tênis’ (Joanina ran in tennis shoes’). Notice that the DP ‘tênis’ *shoes* in ‘tennis shoes’ is selected by the lexical (predicative) preposition ‘de’ *in* and not by the verb ‘run’ *correr*, which is intransitive.

(12b) *ti-seuan-mu-ban*

1SG.SUBJ/AO-man-SEE-PASS

'I saw the/a man' Allen (1988)

As shown in example (12a), the transitive predicate *ban* 'see' selects the first-person subject represented by the prefix {-*ti*} and the object DP *seuanide* 'man'. In (12b), on the other hand, there is a process of incorporation of the object DP *seuanidi* 'man'. Thus, in (12a), the object DP *seuanidi* 'man' appears as an independent lexical item and with the Objective Case agreement morpheme, which is assigned by the predicate *ban* 'see'. In (12b), on the other hand, the object DP *seuani* 'man', is realized within the verbal complex and without the target Case morphological marking {-*ide*}, since it is a bare DP. This situation results in a decrease in the valence of the transitive verb *ban* 'to see', which selects only the first-person subject, represented by the prefix {-*ti*}.

In the occurrences in which the antipassive voice reduces the object to zero, there is a decrease in the valence of the transitive predicate in which the phenomenon takes place. In other words, there is a corresponding original transitive construction and an antipassive derivative and, because of that, an intransitive one. In order to present an example in which the antipassive suppresses the object DP, we relate the following data from English:

(13a) *Speed kills people.*(13b) *Speed kills!*

In (13a), the transitive predicate *kills* selects two core arguments, the subject DP *speed* and the object DP *people*. In example (13b), on the other hand, the predicate receives the antipassive morpheme { \emptyset } whose function is valence reduction. Thus, this transitive verb *kills* changes from transitive to intransitive, selecting only the subject DP *speed*. Additionally, the antipassive structure (13b) should not be confused with the second clause in (14).

(14) *Speed kills a lot of people. Violence kills too.*

In (14), the transitive verb *to kill* in the first sentence selects the object DP *many people*. Additionally, in the second sentence, the omitted object of

the verb *to kill* is contextually inferred. This syntactic situation is not shared with (13b). That is, in the construction where the antipassive suppresses the object, the latter cannot be inferred by context.

The syntactic pivot, in clauses with coordination, for example, is simply a mechanism that makes the omitted argument (*pro*)¹⁷ in the second clause the same as the explicit argument of the first main clause. In this line of investigation, the syntactic pivot is a constituent shared by two clauses in coordination or subordination¹⁸. Even if in the latter the argument is not explicit, it can be recovered. In general, an argument that is found in one sentence is identical to that found in another, thus allowing equivalence to be established between them. Take the following example:

(15) *I shot at the deer and killed it.*

In example (15), the explicit DP *I* in the main sentence performs the same syntactic-semantic function as the omitted subject argument (*pro*) in the coordinated sentence. In several ergative languages that have a syntactic pivot system, there is a requirement that the argument that receives absolutive Case must be the “controller” and the “target” of a zero anaphora in complex sentences. Thus, both the DP that coreferences an omitted DP and the suppressed DP itself must receive absolutive Case. In this context, the use of the antipassive voice will be obligatory if, for example, an intransitive subject (with absolute case) in the first sentence correlates with a transitive subject (with ergative case) in a second sentence. In this case, the occurrence of the antipassive in the second clause allows the subject DP of this clause to receive absolutive case instead of ergative case. In conclusion, not only the subject DP of the first sentence but also the subject DP of the second sentence will receive the same abstract case, namely, the absolutive case. Take the following example from the Dyirbal language below.

17 Null subjects, in finite and non-finite clauses, are treated by generative syntax as *pro* and *PRO*, respectively.

18 In reality, the syntactic pivot occurs in complex clauses (subordinate and coordinate). In this paper, we have chosen to display the syntactic pivot only in coordinating periods. This choice is due to the fact that this subject is not central to the present analysis. For more details about the syntactic pivot, we refer the reader to Foley and Van Valin (1985).

- (16a) *bayi yara bani-nyu ____ bagun dyugumbilgu*
 CL(ABS) man(ABS) come-TNS ____ CLIT(DAT) woman(DAT)
bural-nga-nyu
 see-APASS-TNS

‘The man came and saw the woman’ Foley and Van Valin (1985)

In (16a), the transitive verb of the first sentence selects the DP *yara* ‘man’, which, in this context, receives absolutive case. The predicate of the second sentence *bural* ‘to see’ also transitive, is adjoined to the antipassive morpheme {-nga-}, which has the function of demoting the object DP *dyugumbi*, which becomes oblique, receiving the affix {-gu} and being realized as *dyugumbilgu* ‘woman’. Since *dyugumbilgu* ‘woman’ is now oblique, the omitted subject DP of the second sentence in (16a) can only receive the same Case as the subject of the first sentence, namely, the accusative. This results, in Dyirbal, in a well-formed syntactic construction. If the predicate of the second sentence *bural* ‘woman see’ did not receive the antipassive morpheme, we would have the following ungrammatical construction.

- (16b) **bayi yara bani-nyu balan dyugumbil ____ bura-n*
 CL(ABS) man come-TNS CLIT(ABS) woman(ABS U) ____ see-TNS

‘The man came and saw the woman’ Foley e Van Valin (1985)

In example (16b), the intransitive predicate *baninyu* ‘came’ of the first sentence selects the DP *yara* ‘man’, which, in this context, receives absolutive Case. The predicate of the second sentence *bural* ‘see’ is transitive and c-selects two nuclear arguments, the subject DP (which receives ergative case) recoverable by pragmatic inference, *yara* ‘man’ and the object DP *dyugumbil* ‘woman’, which receives absolutive case, which is ungrammatical in Dyirbal. This ungrammaticality is connected with the fact that, as already stated, both the DP in the first sentence and the omitted DP in the second sentence should be assigned the same abstract Case, namely, the absolutive.

In order to make it evident that the verbal aspect is sensitive to active/antipassive alternation, we have the following examples from the Chukchi language:

- (17a) *etleg-e* *keyng-en* *penre-nen*
 father-ERG bear-ABS attack-APASS-3SG.AOR

‘The father attacked the bear’

- (17b) *etleg-en* *penre-tko-g’e* *kayng-ete*
 father-ABS attack-APASS-3SG.AOR beat-DAT

‘The father ran towards the bear (with the intention of attacking it)’

Palmer (1994)

In (17a), the transitive verb *penre* ‘attack’ assigns the ergative case to the subject DP *etlege* ‘father’ and the absolutive case to the object DP *penrenen* ‘bear’. In (17b), this predicate receives the antipassive morpheme {-tko-}, whose function is to remove the object DP from the initial transitive structure. In (17b), the DP *etlegen* ‘father’ receives absolutive Case, while the object DP of the initial transitive structure is demoted to oblique (dative), being realized as *penretkog’e* ‘bear’. At the end of the process, the transitive verb *penre* ‘attack’ is reanalyzed as intransitive. With respect to the aspectual relation of telicity, in example (17b), there is a sense in which the event is less complete than in relation to (17a), which can be noted by the translations of (17).

Some authors, such as Silverstein (1976), Dixon (1979), Spencer (1991), among others, argue that there is a biunivocal mapping as follows: accusative languages display the passive voice, while ergative languages display the antipassive voice. However, works such as those by Heath (1976), Postal (1977), Davies (1984), Givón (1984), Lazard (1989), Lidz (1996), Lacadena (2000), Blight (2004), among others, show that not only do the ergative languages present antipassive structures, but also the accusative ones exhibit a syntactic construction that seems to correspond to the antipassive ones. This hypothesis is supported by crosslinguistic analysis of the phenomena realized by the antipassive voice

The purpose of this paper is to argue for the hypothesis that, in cases where there is a process of detransitivization of the predicate and demotion

of the direct object to the adjunct position (what the grammatical tradition calls “indirect transitive”), there is a specific context of antipassive voice. Thus, what the data will show is that in accusative languages this construction also occurs.

We assume, along with Herslund (1997), Blight (2004), Polinsky (2005) and others, that despite the fact that ergative languages have a greater tendency to make use of the antipassive voice than accusatives, the phenomenon is not unique to ergative languages. What seems to exist is an occurrence arrangement that can be translated by two almost interchangeable terms: antipassive productivity, according to Polinsky (2005), and antipassive grammaticalization levels, according to Herslund (1997). The latter motivates the existence of a gradation with respect to the occurrence of antipassives in the languages of the world.

Depending on the active and antipassive voice alternation, the following will be said to exist: (i) fully grammaticalized alternation: all transitive verbs, in a language X, accept the active/antipassive voice alternation, as for example in West-Greenlandic; (ii) partially grammaticalized alternation: the active/antipassive alternation, although expanded, common, frequent, and apparently spreading across a language X, does not occur with all verbs of the transitive class, as in Danish; and (iii) lexically determined alternation: there is no systematicity in the choice of alternation. The determination is lexical and not grammatical. That is, the occurrence of antipassive voice in these languages is restricted to a few transitive predicates, e.g., Portuguese. As a model of fully grammaticalized alternation, we analyzed the following data from West Greenlandic, taken from Herslund (1997):

(18a) *Jaakup illu sana-va-a*
 Jacob-ERG house(ABS) be.building-TR.INDIC-3SG.ERG/3SG.ABS
 ‘Jacob is/was building the house’

(18b) *Jaaku illu-mik sana-vu-q*
 Jacob(ABS) house-INS be.building-APASS-INTR-INDIC-3SG.ABS
 ‘Jacob is/was building the house’

The main differences between the transitive and antipassive versions are: in example (18a), the agent DP is assigned the ergative case, whereas in (18b), the agent DP receives absolutive case. Furthermore, in (18a), the patient DP receives absolutive Case. In turn, in (18b), this same patient DP is demoted to oblique (instrumental). Finally, in (18a), the verb is transitively inflected and agrees with both the subject and the object DP; contrarily, in (18b), the verb agrees only with the subject of the sentence.

In this line of investigation, in (18b), the antipassive morpheme $\{\emptyset\}$ is added to the verb, which has the function of reducing the valence of the original transitive verb. In the end, in (18b), the verb, now detransitivized, agrees only with the agent of the sentence. In order to provide an example of partially grammaticalized alternation, we have the following example from Danish.

(19a) *Jakob byggede et hus*
 Jacob built a house
 ‘Jacob built a house’

(19b) *Jakob byggede på et hus*
 Jakob built PREP a house
 ‘Jakob built a house’ Herslund (1997)

On the one hand, in (19a), the transitive verb *byggede* ‘built’ selects the subject DP *Jakob* and the object DP *et hus* ‘a house’; on the other hand, in (19b), the verb *byggede* ‘built’ is detransitivized. That is, in (19b), an antipassive morpheme $\{\emptyset\}$ is associated with the predicate *byggede* ‘built’, which now selects only one argument, namely, the DP *Jakob*. Additionally, the DP *et hus* ‘a house’ becomes, in (19b), an argument not of the predicate *byggede* ‘built’, but of the lexical preposition (=predicative) *på*. In the Danish language, examples like (19b) are productive, but they do not occur with all transitive verbs. Therefore, Herslund (1997) considers that in this language the active/antipassive alternation is partially grammaticalized. In languages where the alternation between the transitive and the prepositional construction occurs on a much smaller scale, the alternation is lexically determined. This syntactic situation seems to occur mainly in accusative languages, as can be seen in the French example below:

(20a=3a) *elle a goûté les fraises*
 she has experimented the strawberries
 ‘She savored the strawberries’

(20b=3b’) *elle a goûté aux fraises*
 she has experienced PREP strawberries
 ‘She tried the strawberries’

In (20a), the transitive predicate *a goûté* ‘has savored’ selects the subject DP *elle* ‘she’ and the object DP *les fraises* ‘the strawberries’. In (20b), on the other hand, there is a morphosyntactic process of valence decrease. Thus, in (20b), an antipassive morpheme $\{\emptyset\}$, whose function is to decrease the valence of the verb, can be associated with the latter. Thus, the transitive predicate of the initial construction has only one nuclear argument, namely, the DP *elle* ‘she’. Additionally, we propose that the DP *fraises* ‘strawberries’, in (20b), is the nuclear argument of the (lexically) predicative preposition *aux*. Another example of a lexically determined antipassive can be analyzed in the following examples from Portuguese:

(21a) *Geraldo bebeu leite*
 Geraldo drank milk

(21b) *Geraldo bebeu do leite*
 Geraldo drank from the milk

In (21a), the transitive verb *bebeu* ‘drank’ c-selects two DPs, the subject *Geraldo* and the object *leite* ‘milk’. In (21b), an antipassive morpheme $\{\emptyset\}$, which has the function of reducing the number of arguments of a predicate, is attached to the transitive verb *bebeu* ‘drank’, which becomes monoargumental. At the end of the syntactic phenomenon, the verb *bebeu* ‘drank’ selects only the subject DP *Geraldo*. Furthermore, we suggest that, in (22b), the DP *leite* ‘milk’ is argument of the predicative preposition *de* ‘from’.

Once we have presented the processes that change the verbal valence by means of object demotion, we will discuss, in the next subsection, the

processes that, by introducing a new argument in the structure, increase the verbal valence of the sentence. To analyze these constructions, we will use the typology proposed in Pylkkänen (2002, 2008) as a basis.

2.4. Applicative heads

Descriptively, applicative morphemes have the function of changing the valence of verbal predicates, thus introducing an argument with the function of object in the structures in which they occur. In parallel, the applied object is an argument inserted into the structure of a verb when it receives the applicative morphology. Thus, applicative heads can: (i) promote oblique phrases to object status; (ii) turn intransitive verbs into transitive ones; and (iii) turn transitive verbs into bitransitive ones. Note the following examples from the Kinyarwanda language, taken from Pylkkänen (2002):

(22a) *umwaana yataaye igitabo um maazi*

child launch book in water

‘The child launched the book in the water’

(22b) *umwaana yataaye-mo amaazi igitabo*

child launch-APPL water book

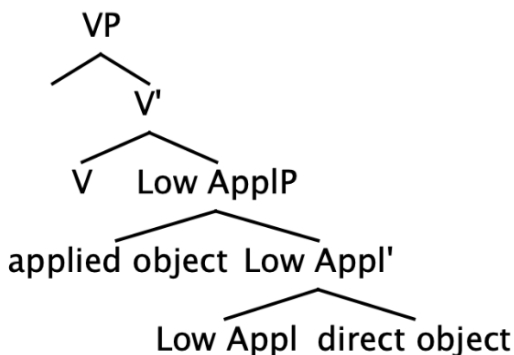
‘The child launched the book in the water’ Pylkkänen (2002)

In (22a), we have the verb *yataaye* ‘to throw’, which selects the subject *umwaana* ‘child’ and two DPs, namely: the direct object *igitabo* ‘book’ and the indirect object *um maazi* ‘in the water’. In (22b), in turn, there is a morphosyntactic process in which the applicative morpheme {-*mo*} is adjoined to the verb *yataaye* ‘to throw’. The consequence of this morphosyntactic phenomenon is that the sentence now has two direct objects, since in (22b) the preposition *um* ‘in’ does not figure and the DP *amaazi* ‘water’ becomes an applied object.

For Pylkkänen (2002, 2008), applicative objects can have a variety of semantic roles, such as benefactive, instrument, locative, comitative, malefactive, source, goal, and reason. According to the author, there is

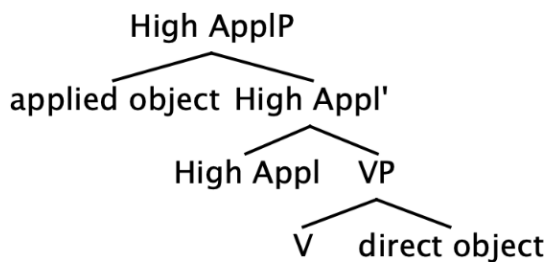
an apparent semantic and syntactic similarity in applicative constructions intra and crosslinguistically. However, these similarities are superficial. Given this, based on Marantz's (1997) Distributed Morphology framework, Pylkkänen (2002, 2008) motivates a typology of applicative functional heads, namely: low applicative and high applicative. The former is projected below the VP, according to the configurational structure in (23), whereas the latter is projected above the VP, as seen in figure (24).

(23) Figure 1 - Low Applicative structure (English)



Source: prepared by the authors

(24) Figure 2 - High Applicative structure (Venda)



Source: prepared by the authors

Semantically, the low applicative head performs the function of establishing a relation of transfer of possession between the two objects. According to the syntactic diagnosis of Pylkkänen (2002, 2008), low

applicative morphology occurs only in transitive constructions as in the following English examples:

(25a) John baked a cake to Mary.

(25b) John baked *Mary* a cake.

In the English example we see that the goal argument *Mary* can be introduced by a preposition (25a), or by a change in the order of the arguments (25b). In (25b), according to Pylkkänen (2002, 2008), there is a null low applicative head that selects the arguments *Mary* and *cake* and introduces them in a transfer of possession relation. At the end of this morphosyntactic process, the verb becomes bitransitive and the goal argument occurs right after the verb. In this example, the applied object *Mary* receives a thematic role of goal assigned by the low applicative head. Furthermore, there is a transfer of possession relation between the two objects *Mary* and *cake*. See below an example from Finnish.

(26)	Liisa	kirjoitti	Mati-ille	kirjee-n
	Liisa.NOM	wrote	Matti-ALL	letter-ACC
	‘Lisa wrote Matti a letter’			Pylkkänen (2002)

In data (26), occurs the transitive verb *kirjoitti* ‘wrote’, which introduces the subject *Liisa* and object *kirjeen* ‘letter’. In addition, a null applicative morpheme $\{\emptyset\}$ occurs, which has the function of selecting the applied argument *Matille*. Thus, the transitive predicate *kirjoitti* ‘wrote’ becomes bitransitive. It is pointed out that the applied object *Matille* is given a semantic role of goal by the low applicative head, as there is also a possession relationship between the two object DPs.

Semantically, the high applicative head has the function of introducing an applied object with several semantic functions (comitative, beneficiary, malefactive, source, goal, locative, instrument, and reason). According to Pylkkänen (2002, 2008), syntactically, the high applicative can affix to intransitive verbs, as in the example below from the Venda language:

- (27) *Mukasa* *o-amb-el-a* *Katonga*
 Mukasa 3SG.PASS-speak-APPL-FV Katonga
 ‘Mukasa spoke for Katonga’ Pylkkänen (2008)

In the Venda language example in (27), the intransitive verb *amb* ‘to speak’ selects the subject DP *Mukasa*. In addition, this verb is attached to the high applicative morpheme $\{-el-\}$, whose function is to introduce the argument *Katonga*. At the end of this morphosyntactic process, the verb *amb* ‘to speak’ changes from intransitive to transitive. In this example, the applied object *Katonga* receives the thematic role of beneficiary assigned by the high applicative head. In conclusion, the semantic difference between the above data is that, in example (27), there are not two objects in a possession relation, as occurs in (25) and (26).

High and Low applicatives are different semantically and syntactically – low applicatives relate two objects, whereas high applicatives relate an object to an event. Pylkkänen proposes three tests to identify a high or low applicative: high applicatives can occur with intransitive and stative verbs, whereas low applicatives do not; also, if secondary depictive predicates are available in that language, the high applicative should be able to be extracted, whereas low applicative should not. In Tenetehára, the $\{er(u)-\}$ morpheme can only occur with intransitive verbs, which would classify it as a high applicative, as we will further propose in section 4.3. In the next section the intent is to present the Case marking system in Tenetehára.

3. Case marking system in Tenetehára¹⁹

As in the other Tupí-Guaraní languages, the nominal phrases in Tenetehára do not receive Case desinences to distinguish between the DPs in the syntactic functions of subject and object. The syntactic functions are encoded through the series of nominative and absolutive prefixes and through the personal pronouns that, in general, come proclitic to the verb. These prefixes can be seen as follows:

¹⁹ The data in this section was taken from Duarte (2007).

Chart 2
Nominative markers and personal pronouns

Persons	Independent personal pronouns	Clitic personal pronouns	Personal nominative prefixes
I	ihe	he	a-
we _{INCLUSIVE}	zane	zane	xi- ~ za-
we _{EXCLUSIVE}	ure	ure	uru- ~ oro-
you/sg	ne	ne	re-
you/pl	pe	pe	pe-
he/she	-	-	u- ~ o- ~ w-

Source: Duarte 2007: 44

Chart 3
Absolutive personal prefixes

Grammatical persons	Root starting with consonant	Root starting with vogal	Distinctive feature
1 ^a /2 ^a	∅-	r-	[+PERSON]
3 ^a	i-	h-	[-PERSON]

Source: Camargos 2010: 27

Duarte (2007) shows that, in the Tenetehára language, Case splitting occurs conditioned by the nature of the NP. That is, when the subject (A) of transitive is higher than the object (O) in the person hierarchy²⁰, the nominative system is triggered. On the other hand, when the object (O) is higher than the subject (A) of transitive, the absolutive system is used. See the following examples.

Nominative system (A > O²¹)

(28a) *ihe a-zuka-ràm zawar*
 I 1-kill-FUT puma
 ‘I will kill the puma’

(28b) *ne re-zuka-ràm zawar*
 you 2-kill-FUT puma
 ‘You will kill the puma’

²⁰ The Tenetehára language, like the other languages of the Tupi-Guaraní family, is sensitive to the person hierarchy. The first person is higher than the second, which is higher than the focal third and, finally, is higher than the non-focal third. Following intuition by Rodrigues (1990) and following Duarte (2007), one can formalize this hierarchy as follows: 1 > 2 > 3^{+FOC} > 3^{-FOC}.

²¹ Here, according to one of the reviewers, the inverse voice is a kind of valence adjustment.

- (28c) *a'e u-zuka-ràm zawar*
s/he 3-kill-FUT puma
'S/he will kill the puma'

Absolutive system (O > A)

- (29a) *he=ø-zuka-àm zawar*
me=ABS-kill-FUT puma
'The puma will kill me'

- (29b) *ne=ø-zuka-ràm zawar*
you=ABS-kill-FUT puma
'The puma will kill you'

According to Duarte (2007), the Tenetehára language also has Case splitting conditioned by the nature of the verb, in the following way: on the one hand, the subject (A) of transitive verb aligns with the subject (Sa) of active intransitive verb; on the other hand, the object (O) of transitive verbs aligns with the subject of inactive intransitive verbs (So). See the following examples.

Nominative system (A = Sa²²)

- (30a) *ihe a-esak zawar*
I 1-see puma
'I saw the puma'

- (30b) *ne re-(e)sak zawar*
you 2-see puma
'You saw the puma'

22 The subject is marked by free pronouns and prefixes.

(30c) *a'e u-esak zawar*
 s/he 3-see puma
 'S/he saw the puma'

(31a) *ihe a-wata*
 I 1-walk
 'I walked'

(31b) *ne re-wata*
 you 2-walk
 'You walked'

(31c) *a'e u-wata*
 s/he 3-walk
 'S/he walked'

Absolutive system (O = So²³)

(32a) *he=r-esak zawar*
 me=ABS-see puma
 'The puma saw me'

(32b) *ne=r-esak zawar*
 you=ABS-see puma
 'The puma saw you'

23 The object is marked by pronominal clitics.

(33a) *he=r-urywete*

I=ABS-happy

‘I am happy’

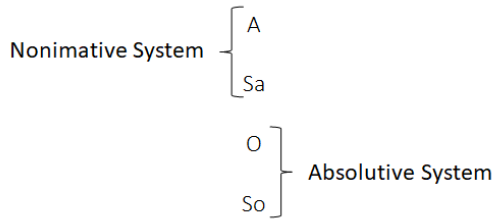
(33b) *ne=r-urywete*

you=ABS-happy

‘You are happy’

In short, the subject (A) of transitive verbs aligns with the subject (Sa) of active verbs (causing the realization of nominative prefixes); in turn, the object (O) of transitive verbs aligns with the subject of inactive verbs (So) (allowing the manifestation of absolutive prefixes). Duarte (2007, p. 53) illustrates this system as follows:

Chart 4
Split system of encoding core arguments
into independent clauses



Source: Adapted from Duarte 2007

In the next section, the goal will be to present data from the Tenetehára language and relate it to the theoretical framework already shown.

4. Analysis and theoretical proposal

This section was structured as follows: (i) object incorporation with and without valence reduction; (ii) verbal valence reduction via the antipassive morpheme $\{-pur(u)\}$; and (iii) verbal valence increase via the applicative morpheme $\{-er(u)\}$.

4.1. Noun incorporation

According to Castro (2007) and Duarte and Castro (2010), the reduction of valence of transitive verbs in object incorporation contexts, following Baker (1988), can be observed as in the examples below.

- (34a) *u-hyw* *u-py'a*
 3-clean corr-belly
 ‘(He) cleaned (his own) belly’

- (34b) *u-py'a-hyw* *t*
 3-belly-clean
 ‘(He) cleaned belly’ Harrison (2007)

In (34), we have the transitive verb *hyw* ‘to clean’, which selects two nuclear arguments: a third-person subject recoverable by the prefix {*u-*}²⁴ and the internal argument *py'a* ‘belly’. In (34b), on the other hand, we can observe that the internal argument is incorporated into the verbal root²⁵, making such predicate monoargumental, which selects only the third-person subject. Let us see another example below.

- (35a) *u-kwaw* *ma'e* *a'e*
 3-know thing 3SG
 ‘(He) knows things’

24 It should be noted that Tenetehára is a null subject (pro-drop) language, allowing the external argument of the transitive verb to be referred to in the verb only by the third person nominative prefix.

25 The incorporated argument cannot carry agreement morphemes, nor can it present determiners, because it needs to be a bare NP. Therefore, the internal argument *u-py'a* ‘his belly’ must lose the correferential prefix {*u-*}. This fact signals that, in fact, the incorporated argument cannot carry anaphoric morphemes.

- (35b) $u\text{-}ma'e\text{-}kwaw$ t $a'e$
 3-thing-know 3SG
 ‘(He) knows things’ Castro (2013)

In (35a), we have the transitive verb *kwaw* ‘to know’, which selects two arguments: the third-person subject and the object *ma'e* ‘thing’. In (35b), on the other hand, we can observe the intransitive predicate *ma'e-kwaw* ‘to know things’, whose object of the initial transitive verb was incorporated. Thus, in the examples of Tenetehára in (34) and (35), it is observed that the NP_{object} is incorporated to the lexical verb, transforming them into unergatives. However, in the possessor standing contexts, besides the incorporation, the valence of the verb does not change. In this case, only part of the object can be incorporated into a transitive verb, which does not become monoargumental. In order to prove this assertion, we have the data below:

- (36a) $o\text{'ok}$ awa $miar$ $i\text{-}\grave{a}k\grave{a}g$
 3-remove man animal POSS-head
 ‘The man removes the head of the animal’

- (36b) $u\text{-}z\grave{a}k\grave{a}g\text{-ok}$ awa [_{DP} $miar$ t]
 3-head-remove man animal
 ‘The man removes the animal’s head’ Castro (2013)

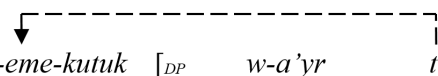
In (36a), the transitive verb *'ok* ‘to take’ selects the subject *awa* ‘man’ and the object *miar i-àkàg* ‘head of the animal’. In (36b), in turn, there is a process of incorporation of part of the object, namely the head of the possessive phrase *i-àkàg*²⁶ ‘head’. Thus, the possessed argument of the possessive phrase is incorporated into the verbal root. At the end of the process, the possessor of the possessive phrase is promoted to object of

26 The incorporated argument cannot carry agreement morphemes, nor can it have determiners, because it must be a bare NP. Therefore, the possessed phrase *i-àkàg* ‘his head’ must lose the possession denoting prefix *{i-}*. This fact signals that, in fact, the incorporated argument cannot carry anaphoric morphemes.

the sentence. This same incorporation without valence decrease can be observed in other examples, as in (37) and (38).

- (37a) *u-kutuk w-a'yr h-eme*
 3-pierce CORR-son POSS-lip

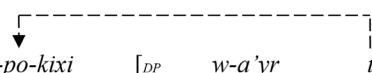
‘(He) pierces the lip of (his own) son’

- (37b) *w-eme-kutuk* [_{DP} *w-a'yr* *t*]
 3-lip-pierce CORR-son
- 

‘(He) pierces the lip of (his own) son’

- (38a) *u-kixi w-a'yr i-po*
 3-cut CORR-son POSS-hand

‘(He) cuts the hand of (his own) son’

- (38b) *o-po-kixi* [_{DP} *w-a'yr* *t*]
 3-hand-cut CORR-son
- 

‘(He) cut the hand of (his own) son’ Castro (2013)

In (37a) and (38a), we have the transitive verbs *kutuk* ‘to pierce’ and *kixi* ‘to cut’ that select third-person subjects and the objects *a'yr h-eme* ‘son’s lip’ and *a'yr i-po* ‘son’s hand’, respectively. In (37b) and (38b), in turn, there is a morphosyntactic process of incorporation of the possessed NP *a'yr* ‘son’ into the verb head. That is, the possessed argument of the possessive phrase moves from its base position, incorporating itself into the verb root. Once the process is completed, the possessor of the possessed argument is raised to the object of the sentence.

Note that in examples (36) to (38), differently from (34) and (35), there is no change in the number of arguments, since there is incorporation of only part of the object in the verbs ‘*ok* ‘to remove’, *kutuk* ‘to pierce’ and *kixi* ‘to

cut', not causing a reduction of valence²⁷. However, these two syntactically distinct processes illustrate the context in which the object is incorporated into the verb according to Baker's (1988) theoretical assumptions. Thus, the movement of the object into the phonological matrix of the verb leaves a trace in the position in which it is generated in a way that meets the Empty Category Principle (ECP) and evidences the application of the Uniformity of Theta Assignment Hypothesis (UTAH). In the next subsection, we investigate the antipassive morpheme $\{-pur(u)\}$.

4.2. The antipassive morpheme $\{-pur(u)\}$

Before investigating the antipassive morpheme $\{-pur(u)\}$, it is very important to present some instigating insights from Cabral (2001) about the morpheme $\{-poro\}$ in the Tembé language. As already mentioned in the introduction of the present work, according to Duarte (2007) and Rodrigues (1985), the Tenetehára language belongs to Branch IV of the Tupí-Guaraní Family, and it is spoken by two indigenous peoples: the Guajajára and the Tembé. Regarding the morpheme $\{-poro\}$ and the Tembé, in accordance with Cabral (2001: 126), one hypothesis is that this morpheme is constituted by the features [+human, +generic]. In this line of research, the author provides the following example:

- 39) *a-puru-esák*
 1-people-see
 'I see people' (Cabral 2001:136)

Moreover, in Guajajara, there is no difference regarding the bundle of semantic features [+human, +generic] present in the grammatical unit $\{-pur(u)\}$ in an analogous morphosyntactic environment. Observe the example below:

- (40) *u-puru-pytywà Kahiw a'e*
 3-people-help Kahiw he
 'Kahiw helps people' (Castro 2013)

²⁷ It can be noted that, in order to incorporate, the argument must be a bare NP. Therefore, the internal arguments in examples (30) to (32) must lose the genitive case attributing prefix $\{i- \sim h-\}$.

In order to present the contexts of occurrence of the antipassive voice morpheme $\{-pur(u)\}$ in Tenetehára and the consequent decrease in valence of transitive predicates, we provide the following examples:

- (41a) *awa w-àro Murari*
 man 3-wait Murari
 ‘The man waits for Murari’

- (41b) *awa i-puru-wàro-wer Murari r-ehe*
 man ABS-APASS-wait-DESID Murari C-PSP
 ‘The man wants to wait for Murari’ Castro (2013)

In example (41a), the transitive predicate *àro* ‘to wait’ selects two core arguments: the subject DP *awa* ‘man’ and the object DP *Murari*. We emphasize that, in this sentence, the case system used is nominative-accusative, since the verb *àro* ‘to wait’ agrees with the subject DP *awa* ‘man’. In turn, in (41b), the predicate *àro* ‘to wait’ receives the antipassive morpheme $\{-pur(u)\}$, which has the function of making the verb of the sentence monoargumental. Consequently, the transitive verb *àro* ‘wait’ now selects only the subject DP *awa* ‘man’. Additionally, the object DP *Murari* of the initial sentence is demoted to oblique in (41b), being selected by the lexical (=predicative) postposition *rehe* ‘in’.

The claim that active/antipassive alternation reverberates in verbal aspect change is again ratified by the fact that in (41b) the desiderative aspect morpheme $\{-wer\}$ emerges, which evidences a desiderative aspectual reading. In this line of investigation, one can postulate that verbal aspect, also in Tenetehára, is sensitive to active/antipassive alternation. At the end of the process, the Case system is changed from nominative-accusative to (ergative)-absolute. See another example below.

- (42a) *w-exak Kahiw ma'eputy*
 3-see Kahiw flower
 ‘Kahiw sees the flower’

- (42b) *i-puru-exak-wer* *Kahiw* *ma'eputyr* *r-ehe* *a'e*
 ABS-APASS-see-DESID Kahiw flower C-PSP 3SG
 'Kahiw wishes to see the flower' Castro (2013)

In (42a), one can observe that the transitive verb *exak* 'see' selects two arguments: the subject DP *Kahiw* and the object DP *ma'eputyr* 'flower'. We point out that the Case system used is nominative-accusative. In (42b), the antipassive morpheme $\{-pur(u)\}$, whose function is to decrease the valence of the transitive verb *exak* 'to see', is attached to the verb. Thus, the transitive predicate of the original sentence becomes intransitive because it selects as core argument only the subject DP *Kahiw*. In (42b), the object DP *ma'eputyr* 'flower' of the original sentence becomes the argument of the lexical postposition *rehe* 'in'. The occurrence of the desiderative aspect morpheme $\{-wer\}$ is also observed. Additionally, the case system is changed from nominative-accusative to (ergative)-absolutive.

Note, in examples (41) and (42), that when transitive verbs receive the morpheme $\{-pur(u)\}$, the internal argument is demoted by means of a postposition, becoming oblique. Our hypothesis, as we have said, is that the object DP of the initial clauses becomes the argument of the predicative postposition *rehe* 'in'.

For a better description of the active and antipassive voice alternation in Tenetehára, we have the following sequence: (i) realization of the APASS morpheme $\{-pur(u)\}$; (ii) the transitive verb, consequently, becomes intransitive; (iii) the object is demoted by means of a postposition; (iv) the desiderative morpheme $\{-wer\}$ emerges next to the verb; and (v) the subject of the initial transitive verb receives the absolutive case in detriment of the nominative case. In order to highlight the steps of antipassive voice construction in Tenetehára, we list two more examples that follow:

- (43a) *u-mimój* *t-àmuj* *ma'erukwer*
 3-cook NP-grandfather meat
 'The grandfather cooks the meat'

- (43b) *i-puru-mimój-wer* *t-àmuj* *ma'erukwer* *r-ehe*
 ABS-APASS-cook-DESID NP-grandfather meat C-PSP
 'The grandfather wishes to cook the meat'

Note that in example (43a), the transitive predicate *mimój* 'cooking' figures as a verb that selects two core arguments: the subject DP *tàmuj* 'grandfather' and the object DP *ma'erukwer* 'meat'. The Case marking system is, in this example, the nominative-accusative. This can be seen because the verb *mimój* 'cook' agrees with the subject DP *tàmuj* 'grandfather'. However, in (43b), the presence of the antipassive morpheme $\{-pur(u)\}$ causes the verb *mimój* 'cook' to be reanalyzed as monoargumental, selecting only the subject DP *tàmuj* 'grandfather'. In addition, the object DP *ma'erukwer* 'meat' of the initial sentence is demoted to oblique, being selected by the lexical postposition *rehe* 'in'.

The claim that the verbal aspect is sensitive to active/antipassive alternation promotes, once again, a sustainability, since in (43b), the desiderative aspect morpheme $\{-wer\}$ emerges. In this line of investigation, in (43a), the object DP *ma'erukwer* 'meat' is necessarily affected by the action expressed by the verbal predicate. In (43b), on the other hand, the DP that corresponds to the object of the original sentence, now headed by the postposition *rehe* 'in', is not necessarily affected by the action of the subject DP *tàmuj* 'grandfather'. At the end of the morphosyntactic process, the Case system is changed from nominative-accusative to (ergative)-absolute. The ungrammatical example below illustrates this antipassive voice construction without the occurrence of the aspectual morpheme.

- (43c) **i-puru-mimój* *t-àmuj* *ma'erukwer* *r-ehe*
 ABS-APASS-cook NP-grandfather meat C-PSP
 'The grandfather cooks the meat'

Here is another example in which we can see, in Tenetehára, the occurrence of both the active voice and the antipassive voice:

- (44a) *kwarer* *u-kwaw* *u-myrypar*
 boy 3-know CORR-friend
 ‘The boy knows (his own) friend’

- (44b) *i-puru-kwaw-wer* *kwarer* *u-myrypar* *r-ehe*
 ABS-APASS-know-DESID boy CORR-friend C-PSP
 ‘The boy wishes to know (his own) friend’

The data in (44a) allows us to observe that the transitive verb *kwaw* ‘to know’ selects two core arguments: the subject DP *kwarer* ‘boy’ and the object DP *umyrypar* ‘friend’. We emphasize that the case system used in this sentence is nominative-accusative. However, in (44b), the antipassive morpheme $\{-pur(u)\}$, whose function is to reduce the valence of the transitive verb *kwaw* ‘to know’, is adjoined to the verb. Therefore, the transitive predicate of the original sentence becomes intransitive, selecting only the subject DP *kwarer* ‘boy’. Additionally, the desiderative aspect morpheme $\{-wer\}$ emerges. At the end of this process, the Case system is changed from nominative-accusative to (ergative)-absolutive. In the next subsection, we investigate the scope of the morpheme $\{er(u)-\}$, which is usually suffixed to monoargumental predicates.

4.3. The applicative morpheme $\{er(u)-\}$

The use of the term ‘applicative’ and the analysis for the comitative morpheme in the Tupí-Guaraní family languages was first used by Vieira (2001). Descriptively, the morpheme $\{er(u)-\}$ constitutes an expedient for increasing the valence of verbs that have only one argument. Such a grammatical unit seems to occur in both unaccusative and unergative verb contexts, assigning comitative thematic role to the inserted argument. Look at the following examples below:

- (45a) *a'e* *u-'ar*
 3 3-fall
 ‘(He) fell’

- (45b) *w-eru-'ar* *w-a'yr*
 3-COM-fall CORR-SON

‘He fell with his son’ Castro (2013)

In (45a), there is the unaccusative verb *'ar* ‘fall’, which selects only one nuclear argument: the subject referred to by the third-person nominative prefix {*u-*}. In (45b), on the other hand, we notice that the unaccusative verb *'ar* ‘fall’ receives the morpheme {*er(u)-*}, whose function is to introduce the object *a'yr* ‘son’, which, in turn, receives the semantic property of comitative. Here is another example with an unaccusative verb:

- (46a) *awa* *u-màno*
 man 3-die

‘The man died’ Castro (2013)

- (46b) *he* *r-apihar* *a-(e)ru-màno*
 1 POSS-equals 1-COM-die

‘I (should) die together with my equals’ Boudin (1966)

In (46a), on the one hand, there is the unaccusative verb *màno* ‘to die’, which selects only one nuclear argument: the subject *awa* ‘man’; on the other hand, in (46b), we notice that this verb receives the morpheme {*er(u)-*}, whose function is to introduce the argument *apihar* ‘equals’. This object receives the semantic attribute of comitative. Next, we present the occurrence of the {*er(u)-*} morpheme with unergative verbs.

- (47a) *kwarer* *u-hapukaj*
 boy 3-scream

‘The boy screams’

(47b) *w-eru-hapukaj* *zawar*
 3-COM-scream dog
 ‘The boy screams with the dog (it’s on his lap)’

(48a) *u-hem* *t-apuj* *ø-wi*
 3-leave NP-house NC-PSP
 ‘(He) left home’

(48b) *w-eru-hem* *u-hy*
 3-COM-leave CORR-mother
 ‘He left with (his own) mother’ Castro (2013)

The examples in (47a) and (48a) exhibit the inergative verbs *hapukaj* ‘scream’ and *hem* ‘leave’, which select the subject *kwarer* ‘boy’ and the third-person subject {*u-*} ‘he’, respectively. In (47b) and (48b), the morpheme {*er(u)-*} introduces the objects *apuj* ‘house’ and *hy* ‘mother’, respectively. Therefore, the examples in this subsection point to the following fact: the morpheme {*er(u)-*} has the property of introducing an object argument in the semantic function of comitative, a syntactic situation in which unergative and unaccusative verbs become transitive.

Adopting Pylkkänen’s (2002, 2008) proposal, and the evidence gathered by Vieira (2010) for the Tupinambá and Guaraní languages, as well as the work by Camargos (2017, 2020), one can propose that in Tenetehára the morpheme {*er(u)-*} is the morphological evidence of the high applicative head for two reasons: (i) syntactically it affixes to intransitive verbs (unaccusatives²⁸ and unergatives); (ii) semantically there is no transfer of

²⁸ Rocha (unpublished) shows that in Ciyanja, a Bantu language, high applicatives can occur with unaccusative verbs:

(i) Mwamuna wa-f-el-a Kondwane.
 Man MS-die-APPL-FV Kondwane
 ‘the man died on Kondwane’ (malefactive reading)

(ii) Mwamuna wa-gw-el-a Kondwane.
 Man MS-fall-APPL-FV Kondwane
 ‘The man fell on top of Kondwane’

possession relation between the two arguments of the verb, but there is the introduction of an argument with a comitative relation with the event described by the verb. In this sense, the Tenetehára language resembles the Venda language, as was shown in subsection 2.4. Next, the aim is to draw the final remarks.

Final remarks

In this paper, we discussed valence alternations in Tenetehára. Based on these epiphenomena, we presented some constructions related to the central theme. We thus developed the analysis that in possessor raising constructions only part of the object, namely, the possessed NP, can be incorporated into the *vP* head. The result of this process does not change the initial transitive structure, that is, in possessor stranding constructions there is no valence reduction, although there is incorporation.

Additionally, we sought to corroborate the existence of the antipassive voice in Tenetehára, as can be observed in other Ergative and Accusative languages. As already mentioned, some authors such as Silverstein (1976), Dixon (1979) and Spencer (1991) argue that there is a biunivocal mapping, in which accusative languages display the passive voice while ergative languages display the antipassive voice. On the contrary, Heath (1976), Postal (1977), Davies (1984), Givón (1984), Lazard (1989), Lidz (1996), Lacadena (2000), Blight (2004), among others, try to make it evident that both ergative languages exhibit antipassive constructions and accusative languages exhibit a structure that seems to correspond to antipassive ones. We take the latter theoretical position in this paper. As we have seen, the antipassive voice seems to produce the same effects on morphology, syntax, and semantics in both ergative and accusative languages, such as English, French, and Portuguese.

Since the evidence shown in this paper points to the fact that antipassive voice contexts do occur in accusative languages, as stated by the authors above, it is interesting to note that traditional grammars do not mention antipassive voice when naming these structures as active voice in “indirect transitive” contexts.

Finally, we investigated the occurrence of the morpheme $\{-er(u)\}$, which, following Pylkkänen (2002, 2008), Vieira (2010), and Camargos (2017, 2020), we found to be the manifestation of a high applicative head in Tenetehára.

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